

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of indicating the location of a relatively mobile object, comprising the ~~steps~~acts of:

- (a) generating a first signal that is characteristic of a first, relatively immobile object;
- (b) transmitting the first signal from the first relatively immobile object;
- (c) detecting the first signal at a receiver;
- (d) generating a second signal that is characteristic of a second, relatively immobile object;
- (e) transmitting the second signal from the second, relatively immobile object;
- (f) detecting the second signal at a ~~the~~the receiver;
- (g) generating a third signal that is characteristic of the

relatively ~~immobile~~ mobile object;

(h) detecting the third signal at ~~a~~ the receiver;

(i) operating a processing device operatively connected to the receiver using signal time-of-flight (t-o-f) data and/or received signal strength information (RSSI) of the first, second and third signals to establish ~~the~~ a distance of the relatively mobile object respectively from the first and second relatively immobile objects; and

(j) generating a signal indicating whether the relatively mobile object is ~~for the time being~~ closer to the first or the second relatively immobile object ~~as the case may be~~.

2. (Currently Amended) ~~A~~ The method according to Claim 1 including the ~~step~~ act of, before carrying out ~~step~~ the act (a):

[[(k)]] locating on each of the relatively mobile and the first and second relatively immobile objects a respective portable transmitter that is capable of generating and transmitting ~~a~~ a said first signal ~~that is characteristic of the object on which it is located~~ and said second signal.

3. (Currently Amended) A-The method according to Claim 2 including, after carrying out ~~step (k)~~ the locating act:

[[(1)]] the ~~step act~~ of supplying, via an input device, data to the processing device that associates each said portable transmitter with the object on which it is located.

4. (Currently Amended) A-The method according to Claim 3 wherein ~~step the act~~ (j) includes assessing data supplied to the processing device whereby the signal indicating whether the relatively mobile object is ~~for the time being~~ closer to the first or the second relatively immobile object includes data identifying:

- (1) the relatively mobile object; and
- (2) at least the relatively immobile object to which ~~it the~~ relatively mobile object is closer / ~~closest~~.

5. (Currently Amended) A-The method according to claim 1 wherein ~~Step the act~~ (i) includes determining the signal ~~tof t-o-f~~ data by obtaining timing information between first and second devices using the ~~steps acts~~ of:

[[-]] transmitting a first timing signal from the first device

to the second device at a first time t1 relative to ~~the~~ a local clock of the first device and measuring ~~the~~ a first time of arrival t2 of ~~that~~ the first timing signal at the second device relative to ~~the~~ a local clock of the second device;

[[~~-~~]] transmitting a second timing signal from the second device to the first device at a second time t3 relative to the local clock of the second device and measuring ~~the~~ a second time of arrival t4 of ~~that~~ the second timing signal at the first device relative to the local clock of the first device; and

[[~~-~~]] assembling the values of t1, t2, t3 and t4 in a single device.

6. (Currently Amended) ~~A~~ The method according to claim 1 wherein Step ~~the act~~ (i) includes a 1-beacon, 2-beacon or 3+-beacon RSSI determination.

7. (Currently Amended) ~~A~~ The method according to claim 1 wherein Step ~~the act~~ (j) includes:

carrying out a contextual conversion using a look-up table stored in a memory device to interpret co-ordinates corresponding

to ~~the~~ locations of the said objects, and generating one or more messages indicative of ~~the~~ identity of one or more said ~~objects.~~
objects.

8. (Currently Amended) A The method according to Claim 2 ~~dependent therefrom~~, wherein ~~Step (k)~~ the act locating includes adhering a portable transmitter to each respective object, using an adhesive material.

9. (Currently Amended) A The method according to Claim 2 ~~dependent therefrom~~, wherein ~~Step~~ the act (j) includes:

[[(m)]] activating each said portable transmitter from a deactivated state.

10. (Currently Amended) A The method according to Claim 9 wherein the ~~step (m)~~ act activating includes:

[[(n)]] removing each said portable transmitter from a storage location, interaction between each portable transmitter and the storage location maintaining it in the said deactivated state

and the said removing causing the said activation.

11. (Currently Amended) A The method according to Claim 3 ~~dependent therefrom~~, wherein the ~~step (1)~~ act supplying includes entering data via one or more of a keyboard, a keypad or a voice input device operatively connected to the processing device.

12. (Currently Amended) A The method according to Claim 3 including, before ~~step (1)~~ the act supplying:

[[(o)]] prompting a user as to ~~the~~ a class of data, selected from a set of classes, requiring inputting.

13. (Currently Amended) A The method according to Claim 12 wherein the set of classes includes at least:

relatively mobile objects;
relatively immobile objects; and
base stations.

14. (Currently Amended) A The method according to claim 1 including, before ~~step~~ the act (j):

[[p)]] interrogating via an input device the processing device as to the location of a said relatively mobile object.

15. (Currently Amended) A The method according to Claim 14 wherein ~~step (p)~~ the act interrogating includes interrogating the processing device via one or more of a keyboard, a keypad or a voice recognition device operatively connected to the receiver.

16. (Currently Amended) A The method according to claim 1 wherein the ~~step act~~ (j) includes transmitting or displaying a message to a user via one or more of a display screen or a speech synthesiser that is operatively connected to the processing device.

17. (Currently Amended) ~~Apparatus~~ A system for indicating the a location of a relatively mobile object, comprising:

~~two or more a first portable transmitters transmitter~~ that are is capable of generating and transmitting ~~signals each a first~~ signal characteristic of a ~~respective first~~ relatively immobile object, the first portable ~~transmitters each transmitter~~ being locatable on ~~a said first~~ relatively immobile object;

a second portable transmitter that is capable of generating and transmitting a second signal characteristic of a second relatively immobile object, the second portable transmitter being locatable on said second relatively immobile object;

~~one or more second a third portable transmitters transmitter~~
that ~~are~~ is capable of generating and transmitting signals ~~each a~~
third signal characteristic of ~~a~~ said relatively mobile object, the
~~or each second third~~ portable transmitter being locatable on a
~~respective said~~ relatively mobile object;

a receiver that is capable of receiving the first, second and third signals ~~generated by the transmitter;~~

a processing device that is capable of establishing, using
signal t-o-f data and/or RSSI of the first, second and third
signals, ~~the distance of a said second transmitter, located on a~~
~~said relatively mobile object, from each of two said first~~
~~transmitters located on respective said relatively immobile objects~~
a distance of the relatively mobile object respectively from the
first and second relatively immobile objects; and

a signal generator capable of generating a signal ~~indicative~~
~~of the said first transmitter to which the said second portable~~

~~transmitter is for the time being closer / closest~~ indicating
whether the relatively mobile object is closer to the first or the
second relatively immobile object.

18. (Currently Amended) ~~Apparatus~~ The system according to
Claim 17 including an input device for inputting to the processing
device data that associates each portable transmitter with the
object on which it is located.

19. (Currently Amended) ~~Apparatus~~ The system according to
Claim 18 wherein the input device includes one or more of a
keyboard, a keypad or a voice input device operatively connected to
the processing device.

20. (Currently Amended) ~~Apparatus~~ The system according to
claim 17 wherein the processing device is programmable and is
programmed to establish the distance ~~of a said second transmitter~~
~~from each of said first transmitters~~, by obtaining timing
information between first and second devices using the ~~steps~~ acts
of:

[[-]] transmitting a first timing signal from the first device to the second device at a first time t_1 relative to ~~the a~~ local clock of the first device and measuring ~~the a~~ first time of arrival t_2 of ~~that the~~ first timing signal at the second device relative to ~~the a~~ local clock of the second device;

[[-]] transmitting a second timing signal from the second device to the first device at a second time t_3 relative to the local clock of the second device and measuring the time of arrival t_4 of ~~that the~~ second timing signal at the first device relative to the local clock of the first device; and

[[-]] assembling the values of t_1 , t_2 , t_3 and t_4 in a single device.

21. (Currently Amended) ~~Apparatus~~ The system according to claim 17 wherein the processing device is programmable and is programmed to establish the distance ~~of a said second transmitter from each of said first transmitters,~~ according to a 1-beacon, 2-beacon or 3+-beacon RSSI determination.

22. (Currently Amended) ~~Apparatus~~ The system according to

claim 17 including an adhesive material for adhering each of said portable ~~transmitter~~ transmitters to a respective one of said object objects.

23. (Currently Amended) ~~Apparatus~~ The system according to Claim 22 wherein each of said portable ~~transmitter~~ transmitters includes the adhesive material permanently secured thereto so as to present an adhesive surface for securing the transmitter to ~~a~~ the respective one of said object objects.

24. (Currently Amended) ~~Apparatus~~ The system according to claim 17 wherein each of said ~~transmitter~~ transmitters is switchable between a deactivated (non-transmitting) and an activated (transmitting) state.

25. (Currently Amended) ~~Apparatus~~ The system according to Claim 24 including a storage member for storing thereon each of said portable transmitter transmitters at least before first use, the storage member and the transmitter co-operating to maintain the transmitter in its deactivated state until its removal from the

storage member on the first use.

26. (Currently Amended) ~~Apparatus~~ The system according to Claim 23 wherein the adhesive surface temporarily secures each of said transmitter transmitters to the storage member at least before first use of the transmitter.

27. (Currently Amended) ~~Apparatus~~ The system according to Claim 25 wherein the storage member is or includes a flexible sheet to which each transmitter is secured before first use.

28. (Currently Amended) ~~Apparatus~~ The system according to Claim 25 ~~dependent therefrom~~, wherein the storage member includes a respective member that co-operate with each of said transmitter transmitters stored thereon before first use in order to maintain the deactivated state of the said transmitter.

29. (Currently Amended) ~~Apparatus~~ The system according to claim 18 including an output device operatively connected to the processing device.

30. (Currently Amended) ~~Apparatus~~ The system according to Claim 29 wherein the processing device is programmable and is programmed to generate a prompt as to data requiring entry via the data entry device and as appropriate display or transmit the prompt via the output device.

31. (Currently Amended) ~~Apparatus~~ The system according to Claim 29 wherein the output device ~~is or~~ includes one or more of a display screen or a speech synthesiser.

32. (Currently Amended) ~~Apparatus~~ The system according to claim 1 wherein the processing device is programmable and is programmed to carry out a contextual conversion on data indicative of the said first relatively immobile object or second relatively immobile object transmitter to which the ~~second transmitter~~ relatively mobile object is ~~for the time being closer / closest~~.